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L2: Entry 6 of 7

File: USPT

Oct 3, 1995

DOCUMENT-IDENTIFIER: US 5454849 A

TITLE: Soil treatment composition

## BSPR:

A characteristic of the mixture is that it will have a weight ratio between about 2 and 6 parts of sewage sludge ash solids to one part of water treatment lime solids. This ratio is believed to be surprisingly high for the ash solids. The weight ratio for a particular mixture to be used on a specific area of agricultural soil is predetermined from the preliminary analysis of the agricultural soil contemplated for treatment. The preliminary analysis is to determine the preexisting pH and plant-available phosphorous level of the soil. Treatment according to the teachings of the invention is not recommended for agricultural soil having an acidity pH of 6.5 or above or agricultural soil having plant-available phosphorus at a level over about 400 pounds per acre prior to treatment. The specific ratio of ash solids to lime solids is reduced commensurately with a reduced pH of the soil to be treated with the mixture.

## DEPR:

Of course, the pathogens of waste sewage sludge are killed during incineration.

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L8: Entry 1 of 3

File: PGPB

Apr 19, 2001

DOCUMENT-IDENTIFIER: US 20010000325 A1

TITLE: Soil amendment compositions and methods for using the same

## BSTX:

19. A second feature component of the subject compositions is the carbon skeleton energy (CSE) component. CSE components that find use in the subject compositions are carbon containing substances which provide a readily assimilable source of both carbon and energy for promoting microbial proliferation. Preferably, the CSE component provides a complex array of various carbon compounds such that varied enzymology is induced in microbes present in the target soil. As such, CSE sources that favor ancestral, beneficial species, which normally carry complex enzyme systems (as opposed to more simplified forms hosted by facultative pathogens) are particularly preferred. Generally, the carbon skeleton energy component is a C.sub.2 to C.sub.10, usually C.sub.4 to C.sub.8 compound or polymer thereof, e.g. a polymer in which the monomeric units are C.sub.2 to C.sub.10 compounds, such as a polysaccharide. The CSE component may be a single carbon containing compound or a composition of two or more different carbon containing or organic compounds. Compounds and compositions capable of serving as a CSE component include: complex organic compositions, such as molasses (e.g. cane, sugar beet, sorghum, etc.), whey, corn steep liquor, grape syrup, maple syrup, corn syrup, etc; sugars, e.g. sucrose, fructose, glucose, lactose, galactose, dextrose, maltose, raffinose, ribose, ribulose, xylulose, xylose, amylose, arabinose, etc.; sugar phosphates, e.g. fucose-P, galactose-P, glucose-P, lactose-P, maltose-P, mannose-P, ribose-P, ribulose-P, xylose-P, xylulose-P, etc.; sugar alcohols, e.g. adonitol, sorbitol, mannitol, maltitol, ribitol, galactitol, glucitol, etc.; organic acids, e.g. glucuronic acid, alpha ketoglutaric acid, galactonic acid, glucaric acid, gluconic acid, pyruvic acid, polygalacturonic acid, citric acid, succinic acid, malic acid, isocitric acid, folic acid, etc.; nucleotides and bases, e.g. adenosine, adenosine-P, uridine, uridine-P, thymine, thymine-P, cytosine, cytosine-P, guanine, guanine-P, etc.; and amino acids, e.g. glycine, alanine, leucine, isoleucine, asparagine, tyrosine, phenylalanine, serine, cysteine, valine, proline, methionine, glutamine, threonine, lysine, aspartic acid, glutamic acid, arginine, and the like.